



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,263	11/28/2001	Leonard J. Bond	50005-37	9135

7590

07/08/2003

John M. Bradshaw  
Woodard, Emhardt, Naughton, Moriarty and McNett  
Bank One Center/Tower  
111 Monument Circle, Suite 3700  
Indianapolis, IN 46204-5137

EXAMINER

KWOK, HELEN C

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/000,263

Applicant(s)

BOND ET AL.

Examiner

Helen C. Kwok

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2856

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6, 14, 19, 23, 26, 29, 39-48 and 50-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, lines 3-4, the phrase “the bulk heterogeneous process stream” lacks antecedent basis.

In claim 14, lines 1-2, the phrase “the plurality of receivers” lacks antecedent basis. In line 4, the phrase “the plurality of receivers” lacks antecedent basis.

In claim 19, line 1, the phrase “the interrogation devices” lacks antecedent basis.

In claim 23, line 1, the phrase “the plurality of detectors” lacks antecedent basis.

In claim 26, line 2, the phrase “the bulk material flow direction” lacks antecedent basis.

In claim 29, line 2, the phrase “the process stream” lacks antecedent basis. In line 3, the phrase “the process stream” lacks antecedent basis.

In claim 38, lines 1-2, the phrase “the inspection devices” is vague. What if there is only one inspection device claim; hence the phrase “the inspection devices” would lack antecedent basis.

Art Unit: 2856

In claim 39, line 2, the phrase “the inspection devices” is vague. What if there is only one inspection device claim; hence the phrase “the inspection devices” would lack antecedent basis.

In claim 40, line 1, the phrase “the flow path” lacks antecedent basis.

In claim 41, line 4, the phrase “the generally rectangular portion” lacks antecedent basis.

In claim 46, line 1, the phrase “the acoustic path” lacks antecedent basis.

In claim 47, line 1, the phrase “the solid material” lacks antecedent basis. In lines 1-2, the phrase “the bulk material flow direction” lacks antecedent basis. In line 2, the phrase “the inspection device” is vague. What if there is more than one inspection device claim; hence the phrase “the inspection device” would lack antecedent basis.

In claim 48, the phrase “the solid material” lacks antecedent basis.

In claim 50, line 2, the phrase “the flow path” lacks antecedent basis.

In claim 51, line 1, the phrase “the plurality of receivers” lacks antecedent basis.

In claim 52, line 1, the phrase “the acoustic path” lacks antecedent basis. In line 2, the phrase “the inspection device” is vague. What if there is more than one inspection device claim; hence the phrase “the inspection device” would lack antecedent basis.

In claim 53, lines 1-2, the phrase “the bulk material flow direction” lacks antecedent basis. In line 2, the phrase “the inspection device” is vague. What if there is more than one inspection device claim; hence the phrase “the inspection device” would lack antecedent basis.

Art Unit: 2856

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-58 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 4-166063 (Tanaka).

With regards to claims 1, 6, 8-14, Tanaka discloses a method and apparatus for sensing material in fish meat comprising, as illustrated in Figures 1-11, a heterogenous process stream 23 contained in a conduit with a flat wall with ultrasound by pulsing a focused sound field ultrasound 24 into the process stream through the flat wall; receiving off-angle ultrasound scattering response with a plurality of detectors 25 at spaced locations through the flat wall; and determining the presence of foreign material (i.e. bones in fish) in the process stream if off-angle ultrasound scattering response exceeds a predetermined threshold. (See Abstract and Figures 1-11)

With regards to claims 2-5, as observed in the figures, the received ultrasound response scatters at an angle between 10 to 45 degrees. Also, the spatial location of the foreign material in the process stream based on detectors (i.e. receivers) focuses on different portions of the process streams.


Art Unit: 2856

With regards to claim 7, the frequency of the ultrasound is between 0.1 to 5 MHZ. (See, page 390, column 28).

With regards to claims 15-58, the claims are commensurate in scope with claims 1-14 and are rejected for the same reasons as set forth above.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen Kwok whose telephone number is (703) 308-8149.

  
Helen C. Kwok  
Art Unit 2856

hck  
June 29, 2003